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ABSTRACT

A cognitive processing model was adopted by the task force developing the National Association of Secondary School Principals' (NASSP) Learning Style Profile (LSP). The LSP contains 23 independent scales representing four higher order factors: cognitive skills; perceptual responses; study preferences; and instructional preferences. The subscales are: (1) analytic skill; (2) spatial skill; (3) discrimination skill; (4) categorizing skill; (5) sequential processing skill; (6) memory skill; (7) visual perceptual response; (8) auditory perceptual response; (9) emotive perceptual response; (10) persistence orientation; (11) verbal risk orientation; (12) verbal spatial preference; (13) manipulative preference; (14-17) study time preference (early morning, late morning, afternoon, or evening); (18) grouping preference; (19) posture preference; (20) mobility preference; (21) sound preference; (22) lighting preference; and (23) temperature preference. Students' results on the LSP should be useful in determining the type of instruction which is most beneficial for each individual. (GDC)

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The Purpose and Significance of the NASSP Learning Style Profile

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THE PURPOSE AND SIGNIFICANCE OF THE NASSP LEARNING STYLE PROFILE

The investigation of learning style has not been a high priority in American educational research. In the 1960s, educational psychologists became interested in the work on cognitive controls which began after World War II at Brooklyn College, the Menninger Foundation, and the Fels Institute. Most researchers soon moved to other areas of inquiry, however, concluding that the investigation of learning style variables was unproductive or not worthy of continued support by funding agencies.

Educational practitioners at both the college and school levels became aware of the potential of learning style analysis at about the time that most psychologists were abandoning the topic. The consequence has been a fragmented field with little agreement on the conceptual issues and no collaborative thrust.

In 1979, the National Association of Secondary School Principals (NASSP) undertook the co-sponsorship of a National Learning Styles Network with St. John's University of New York. In 1981, a major conference was sponsored by the network that brought together many of the leading persons in the field to discuss and exchange information on student learning style and brain behavior. NASSP (1982) issued selected conference papers in the publication Student Learning Styles and Brain Behavior: Programs, Instrumentation, Research.

Shortly after the conference, the NASSP moved to form a national Task Force on learning styles composed of researchers and practitioners with different expertise and backgrounds in the field. The goals of the Task Force were to study the field in depth, evaluate current assessment technology, and judge the feasibility of developing a conceptual and psychometric model for state-of-the-art instrumentation. The Task Force spent almost a year reviewing the available literature and instrumentation. It then set for itself the task of creating a single learning style instrument that would assess a broad spectrum of research-based style elements, be easily administered in the school setting, and be valid and reliable. Learning style elements were classified into cognitive, affective, and physiological/environmental domains.

An information processing perspective (Letteri, 1982; Osboorne and Wittrock, 1983) was adopted as the basis for the Task Force conceptual model of style. This model views learning as information processing, the storage and retrieval of information. All subject matter must pass through the individual's information processing system to be learned, retained and recalled. After information is received from the external environment (through the senses) and sorted briefly in perceptual memory, the mind makes a decision what to do about a given message. It may reject the information, memorize it for short term recall, transform it to conform to prior messages, or learn it by integrating, assimilating, differentiating, or associating it in working and long term memory. The end result is a changed cognitive structure for the individual.

Cognitive elements are processes and skills that are prerequisite to learning itself. Cognitive skills, in turn, are influenced by various

affective and environmental preferences that the individual brings to the learning situation. The gestalt of cognitive, affective, and environmental elements is what we term learning style.

The National Task Force considered a large number of cognitive/learning style and brain behavior characteristics before establishing a developmental list with operational definitions. During 1983, the Task Force prepared a set of concept papers and reached consensus on the use of learning style as the umbrella concept and some 40-50 elements to be investigated.

The Learning Style Profile (LSP) was developed in four phases from the fall of 1983 to early 1986. The LSP in its published form contains 23 independent scales representing four higher order factors: cognitive skills, perceptual responses, study preferences, and instructional preferences. Principal authors of the Profile are James W. Keefe, NASSP's director of research and John S. Monk of Ohio State University. Charles Letteri, Marlin Languis and Rita Dunn assisted with initial item development. All members of the Learning Styles Task Force contributed to the development of the instrument.

The LSP subscales and their meanings are as follows:

1. ANALYTIC SKILL - To identify simple figures hidden in a complex field; to use the critical element of a problem in a different way
2. SPATIAL SKILL - To identify geometric shapes and rotate ojects in the imagination; to recognize and construct objects in mental space

3. DISCRIMINATION SKILL - To visualize the important elements of a task; to focus attention on required detail and avoid distractions
4. CATEGORIZING SKILL - To use reasonable vs vague criteria for classifying information; to form accurate, complete, and organized categories of information
5. SEQUENTIAL PROCESSING SKILL - To process information sequentially and verbally; to readily derive meaning from information presented sequentially or verbally
6. MEMORY SKILL - To retain distinct vs vague images in repeated tasks; to detect and remember subtle changes in information
7. PERCEPTUAL RESPONSE: VISUAL - Initial reaction to information as visual response
8. PERCEPTUAL RESPONSE: AUDITORY - Initial reaction to information as auditory response
9. PERCEPTUAL RESPONSE: EMOTIVE - Initial reaction to information as emotional and/or physiological response
10. PERSISTENCE ORIENTATION - Willingness to work at a task until completion
11. VERBAL RISK ORIENTATION - Willingness to express opinions, speak out, etc.
12. VERBAL SPATIAL PREFERENCE - For verbal vs nonverbal activities
13. MANIPULATIVE PREFERENCE - For "hands on" activities
14. STUDY TIME PREFERENCE: EARLY MORNING - For studying in the early morning
15. STUDY TIME PREFERENCE: LATE MORNING - For studying in the late morning
16. STUDY TIME PREFERENCE: AFTERNOON - For studying in the afternoon
17. STUDY TIME PREFERENCE: EVENING - For studying in the evening
18. GROUPING PREFERENCE - For whole class vs small group vs dyadic grouping

19. POSTURE PREFERENCE - For formal vs informal study arrangements
20. MOBILITY PREFERENCE - For moving about and taking breaks vs working until finished
21. SOUND PREFERENCE - For quiet study areas vs background sound (radio, tv)
22. LIGHTING PREFERENCE - For bright vs lower lighted study areas
23. TEMPERATURE PREFERENCE - For studying in a cool vs a warm environment

The Learning Style Profile is a first level diagnostic tool to support greater personalization of instruction and learning. The LSP is intended to help teachers identify student learning style strengths and weakness and thereby organize instruction more efficiently and effectively.

Existing research suggests that students with very strong or very weak learning style skills, responses or preferences can benefit from training that augments those skills, and instructional arrangements that optimize those responses or preferences. Students with strong cognitive skills are more ready for challenging instruction and more capable of working at or beyond grade level. Students with strong visual responses are less likely to learn in settings that are strictly verbal. Those with strong emotional response or a high need for "hands on" activities tend to ignore typical auditory or visual instruction. Those with strong study time or instructional preferences learn basic skills best under matched (personalized) learning conditions. The LSP helps to identify these and other important learning needs and conditions.

Teachers will find STUDENT AND CLASS PROFILES helpful in organizing instruction for students with similar cognitive strengths or weakness,

with similar perceptual response tendencies, or with similar instructional preferences. Students with Analytic Skill or Categorizing Skill deficiencies, for example, can benefit from focused problem solving activities. Those with afternoon or evening Study Time Preferences can be helped to function more successfully in the morning if their instructional and study preferences are matched. Those with low Verbal Risk orientation can function better in smaller groups where the possibility of embarrassment is lessened and useful interaction can be optimized.

The Learning Style Task Force is currently sponsoring an experimental research competition to encourage the development of a computerized instructional management system that will enable teachers to more effectively relate teaching style and methodology to student learning style. The Task Force hopes to have something available for use in schools by late 1989.

National Association of Secondary School Principals

LEARNING STYLE PROFILE TRAINING SEMINAR

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